

SEQUENCE LISTING

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RISAU, WERNER
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GAZIT, AVIV
LEVITZKI, ALEX

<120> FLK-1 IS A RECEPTOR FOR VASCULAR ENDOTHELIAL GROWTH FACTOR

<130> 017853-0145

<140> 10/799,782
<141> 2004-03-15

<150> 09/766,678
<151> 2001-01-23

<150> 08/965,598
<151> 1997-11-06

<150> 08/193,829
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<150> 07/975,750
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| cag aaa gac ata ctg aca att ttg gca aat aca acc ctt cag att act Gln Lys Asp Ile Leu Thr Ile Leu Ala Asn Thr Thr Leu Gln Ile Thr 40 45 50 | 441 |
| tgc agg gga cag cgg gac ctg gac tgg ctt tgg ccc aat gct cag cgt Cys Arg Gly Gln Arg Asp Leu Asp Trp Leu Trp Pro Asn Ala Gln Arg 55 60 65 | 489 |
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| gga gcc tac aag tgc tcg tac cgg gac gtc gac ata gcc tcc act gtt Gly Ala Tyr Lys Cys Ser Tyr Arg Asp Val Asp Ile Ala Ser Thr Val 105 110 115 | 633 |
| tat gtc tat gtt cga gat tac aga tca cca ttc atc gcc tct gtc agt Tyr Val Tyr Val Arg Asp Tyr Arg Ser Pro Phe Ile Ala Ser Val Ser 120 125 130 | 681 |
| gac cag cat ggc atc gtg tac atc acc gag aac aag aac aaa act gtg Asp Gln His Gly Ile Val Tyr Ile Thr Glu Asn Lys Asn Lys Thr Val 135 140 145 | 729 |
| gtg atc ccc tgc cga ggg tcg att tca aac ctc aat gtg tct ctt tgc Val Ile Pro Cys Arg Gly Ser Ile Ser Asn Leu Asn Val Ser Leu Cys 150 155 160 | 777 |
| gct agg tat cca gaa aag aga ttt gtt ccg gat gga aac aga att tcc Ala Arg Tyr Pro Glu Lys Arg Phe Val Pro Asp Gly Asn Arg Ile Ser 165 170 175 180 | 825 |
| tgg gac agc gag ata ggc ttt act ctc ccc agt tac atg atc agc tat Trp Asp Ser Glu Ile Gly Phe Thr Leu Pro Ser Tyr Met Ile Ser Tyr 185 190 195 | 873 |
| gcc ggc atg gtc ttc tgt gag gca aag atc aat gat gaa acc tat cag Ala Gly Met Val Phe Cys Glu Ala Lys Ile Asn Asp Glu Thr Tyr Gln 200 205 210 | 921 |
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| gtc tta aat tgt aca gcg aga aca gag ctc aat gtg ggg ctt gat ttc Val Leu Asn Cys Thr Ala Arg Thr Glu Leu Asn Val Gly Leu Asp Phe 245 250 255 260 | 1065 |
| acc tgg cac tct cca cct tca aag tct cat cat aag aag att gta aac Thr Trp His Ser Pro Pro Ser Lys Ser His His Lys Lys Ile Val Asn 265 270 275 | 1113 |
| cgg gat gtg aaa ccc ttt cct ggg act gtg gcg aag atg ttt ttg agc Arg Asp Val Lys Pro Phe Pro Gly Thr Val Ala Lys Met Phe Leu Ser 280 285 290 | 1161 |
| acc ttg aca ata gaa agt gtg acc aag agt gac caa ggg gaa tac acc Thr Leu Thr Ile Glu Ser Val Thr Lys Ser Asp Gln Gly Glu Tyr Thr 295 300 305 | 1209 |
| tgt gta gcg tcc agt gga cgg atg atc aag aga aat aga aca ttt gtc Cys Val Ala Ser Ser Gly Arg Met Ile Lys Arg Asn Arg Thr Phe Val 310 315 320 | 1257 |
| cga gtt cac aca aag cct ttt att gct ttc ggt agt ggg atg aaa tct Arg Val His Thr Lys Pro Phe Ile Ala Phe Gly Ser Gly Met Lys Ser 325 330 335 340 | 1305 |
| ttg gtg gaa gcc aca gtg ggc agt caa gtc cga atc cct gtg aag tat Leu Val Glu Ala Thr Val Gly Ser Gln Val Arg Ile Pro Val Lys Tyr 345 350 355 | 1353 |
| ctc agt tac cca gct cct gat atc aaa tgg tac aga aat gga agg ccc Leu Ser Tyr Pro Ala Pro Asp Ile Lys Trp Tyr Arg Asn Gly Arg Pro 360 365 370 | 1401 |
| att gag tcc aac tac aca atg att gtt ggc gat gaa ctc acc atc atg Ile Glu Ser Asn Tyr Thr Met Ile Val Gly Asp Glu Leu Thr Ile Met 375 380 385 | 1449 |
| gaa gtg act gaa aga gat gca gga aac tac acg gtc atc ctc acc aac Glu Val Thr Glu Arg Asp Ala Gly Asn Tyr Thr Val Ile Leu Thr Asn 390 395 400 | 1497 |
| ccc att tca atg gag aaa cag agc cac atg gtc tct ctg gtt gtg aat Pro Ile Ser Met Glu Lys Gln Ser His Met Val Ser Leu Val Val Asn 405 410 415 420 | 1545 |
| gtc cca ccc cag atc ggt gag aaa gcc ttg atc tcg cct atg gat tcc Val Pro Pro Gln Ile Gly Glu Lys Ala Leu Ile Ser Pro Met Asp Ser 425 430 435 | 1593 |
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| cct ccc ctg cac cac atc cag tgg tac tgg cag cta gaa gaa gcc tgc Pro Pro Leu His His Ile Gln Trp Tyr Trp Gln Leu Glu Glu Ala Cys 455 460 465 | 1689 |
| tcc tac aga ccc ggc caa aca agc ccg tat gct tgt aaa gaa tgg aga Ser Tyr Arg Pro Gly Gln Thr Ser Pro Tyr Ala Cys Lys Glu Trp Arg 470 475 480 | 1737 |
| cac gtg gag gat ttc cag ggg gga aac aag atc gaa gtc acc aaa aac His Val Glu Asp Phe Gln Gly Asn Lys Ile Glu Val Thr Lys Asn 485 490 495 500 | 1785 |
| caa tat gcc ctg att gaa gga aaa aac aaa act gta agt acg ctg gtc Gln Tyr Ala Leu Ile Glu Gly Lys Asn Lys Thr Val Ser Thr Leu Val 505 510 515 | 1833 |
| atc caa gct gcc aac gtg tca gcg ttg tac aaa tgt gaa gcc atc aac Ile Gln Ala Ala Asn Val Ser Ala Leu Tyr Lys Cys Glu Ala Ile Asn 520 525 530 | 1881 |
| aaa gcg gga cga gga gag agg gtc atc tcc ttc cat gtg atc agg ggt Lys Ala Gly Arg Gly Glu Arg Val Ile Ser Phe His Val Ile Arg Gly 535 540 545 | 1929 |
| cct gaa att act gtg caa cct gct gcc cag cca act gag cag gag agt Pro Glu Ile Thr Val Gln Pro Ala Ala Gln Pro Thr Glu Gln Glu Ser 550 555 560 | 1977 |
| gtg tcc ctg ttg tgc act gca gac aga aat acg ttt gag aac ctc acg Val Ser Leu Leu Cys Thr Ala Asp Arg Asn Thr Phe Glu Asn Leu Thr 565 570 575 580 | 2025 |
| tgg tac aag ctt ggc tca cag gca aca tcg gtc cac atg ggc gaa tca Trp Tyr Lys Leu Gly Ser Gln Ala Thr Ser Val His Met Gly Glu Ser 585 590 595 | 2073 |
| ctc aca cca gtt tgc aag aac ttg gat gct ctt tgg aaa ctg aat ggc Leu Thr Pro Val Cys Lys Asn Leu Asp Ala Leu Trp Lys Leu Asn Gly 600 605 610 | 2121 |
| acc atg ttt tct aac agc aca aat gac atc ttg att gtg gca ttt cag Thr Met Phe Ser Asn Ser Thr Asn Asp Ile Leu Ile Val Ala Phe Gln 615 620 625 | 2169 |
| aat gcc tct ctg cag gac caa ggc gac tat gtt tgc tct gct caa gat Asn Ala Ser Leu Gln Asp Gln Gly Asp Tyr Val Cys Ser Ala Gln Asp 630 635 640 | 2217 |
| aag aag acc aag aaa aga cat tgc ctg gtc aaa cag ctc atc atc cta Lys Lys Thr Lys Lys Arg His Cys Leu Val Lys Gln Leu Ile Ile Leu 645 650 655 660 | 2265 |
| gag cgc atg gca ccc atg atc acc gga aat ctg gag aat cag aca aca Glu Arg Met Ala Pro Met Ile Thr Gly Asn Leu Glu Asn Gln Thr Thr 665 670 675 | 2313 |

| | | |
|---|-----|------|
| acc att ggc gag acc att gaa gtg act tgc cca gca tct gga aat cct | | 2361 |
| Thr Ile Gly Glu Thr Ile Glu Val Thr Cys Pro Ala Ser Gly Asn Pro | | |
| 680 | 685 | 690 |
| acc cca cac att aca tgg ttc aaa gac aac gag acc ctg gta gaa gat | | 2409 |
| Thr Pro His Ile Thr Trp Phe Lys Asp Asn Glu Thr Leu Val Glu Asp | | |
| 695 | 700 | 705 |
| tca ggc att gta ctg aga gat ggg aac cgg aac ctg act atc cgc agg | | 2457 |
| Ser Gly Ile Val Leu Arg Asp Gly Asn Arg Asn Leu Thr Ile Arg Arg | | |
| 710 | 715 | 720 |
| gtg agg aag gag gat gga ggc ctc tac acc tgc cag gcc tgc aat gtc | | 2505 |
| Val Arg Lys Glu Asp Gly Leu Tyr Thr Cys Gln Ala Cys Asn Val | | |
| 725 | 730 | 735 |
| 740 | | |
| ctt ggc tgt gca aga gcg gag acg ctc ttc ata ata gaa ggt gcc cag | | 2553 |
| Leu Gly Cys Ala Arg Ala Glu Thr Leu Phe Ile Ile Glu Gly Ala Gln | | |
| 745 | 750 | 755 |
| gaa aag acc aac ttg gaa gtc att atc ctc gtc ggc act gca gtg att | | 2601 |
| Glu Lys Thr Asn Leu Glu Val Ile Ile Leu Val Gly Thr Ala Val Ile | | |
| 760 | 765 | 770 |
| gcc atg ttc ttc tgg ctc ctt gtc att gtc cta cgg acc gtt aag | | 2649 |
| Ala Met Phe Phe Trp Leu Leu Val Ile Val Leu Arg Thr Val Lys | | |
| 775 | 780 | 785 |
| cgg gcc aat gaa ggg gaa ctg aag aca ggc tac ttg tct att gtc atg | | 2697 |
| Arg Ala Asn Glu Gly Glu Leu Lys Thr Gly Tyr Leu Ser Ile Val Met | | |
| 790 | 795 | 800 |
| gat cca gat gaa ttg ccc ttg gat gag cgc tgt gaa cgc ttg cct tat | | 2745 |
| Asp Pro Asp Glu Leu Pro Leu Asp Glu Arg Cys Glu Arg Leu Pro Tyr | | |
| 805 | 810 | 815 |
| 820 | | |
| gat gcc agc aag tgg gaa ttc ccc agg gac cgg ctg aaa cta gga aaa | | 2793 |
| Asp Ala Ser Lys Trp Glu Phe Pro Arg Asp Arg Leu Lys Leu Gly Lys | | |
| 825 | 830 | 835 |
| cct ctt ggc cgc ggt gcc ttc ggc caa gtg att gag gca gac gct ttt | | 2841 |
| Pro Leu Gly Arg Gly Ala Phe Gly Gln Val Ile Glu Ala Asp Ala Phe | | |
| 840 | 845 | 850 |
| gga att gac aag aca gcg act tgc aaa aca gta gcc gtc aag atg ttg | | 2889 |
| Gly Ile Asp Lys Thr Ala Thr Cys Lys Thr Val Ala Val Lys Met Leu | | |
| 855 | 860 | 865 |
| aaa gaa gga gca aca cac agc gag cat cga gcc ctc atg tct gaa ctc | | 2937 |
| Lys Glu Gly Ala Thr His Ser Glu His Arg Ala Leu Met Ser Glu Leu | | |
| 870 | 875 | 880 |
| aag atc ctc atc cac att ggt cac cat ctc aat gtg gtg aac ctc cta | | 2985 |
| Lys Ile Leu Ile His Ile Gly His His Leu Asn Val Val Asn Leu Leu | | |
| 885 | 890 | 895 |
| 900 | | |

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| tgc aag ttt gga aac cta tca act tac tta cg ^g ggc aag aga aat gaa Cys Lys Phe Gly Asn Leu Ser Thr Tyr Leu Arg Gly Lys Arg Asn Glu 920 925 930 | 3081 |
| ttt gtt ccc tat aag agc aaa ggg gca cgc ttc cgc cag ggc aag gac Phe Val Pro Tyr Lys Ser Gly Ala Arg Phe Arg Gln Gly Lys Asp 935 940 945 | 3129 |
| tac gtt ggg gag ctc tcc gtg gat ctg aaa aga cgc ttg gac agc atc Tyr Val Gly Glu Leu Ser Val Asp Leu Lys Arg Arg Leu Asp Ser Ile 950 955 960 | 3177 |
| acc agc agc cag agc tct gcc agc tca ggc ttt gtt gag gag aaa tcg Thr Ser Ser Gln Ser Ser Ala Ser Ser Gly Phe Val Glu Glu Lys Ser 965 970 975 980 | 3225 |
| ctc agt gat gta gag gaa gaa gct tct gaa qaa ctg tac aag gac Leu Ser Asp Val Glu Glu Glu Ala Ser Glu Glu Leu Tyr Lys Asp 985 990 995 | 3273 |
| ttc ctg acc ttg gag cat ctc atc tgt tac agc ttc caa gtg gct Phe Leu Thr Leu Glu His Leu Ile Cys Tyr Ser Phe Gln Val Ala 1000 1005 1010 | 3318 |
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| ctg gca gca cga aac att ctc cta tcg gag aag aat gtg gtt aag Leu Ala Ala Arg Asn Ile Leu Leu Ser Glu Lys Asn Val Val Lys 1030 1035 1040 | 3408 |
| atc tgt gac ttc ggc ttg gcc cgg gac att tat aaa gac ccg gat Ile Cys Asp Phe Gly Leu Ala Arg Asp Ile Tyr Lys Asp Pro Asp 1045 1050 1055 | 3453 |
| tat gtc aga aaa gga gat gcc cga ctc cct ttg aag tgg atg gcc Tyr Val Arg Lys Gly Asp Ala Arg Leu Pro Leu Lys Trp Met Ala 1060 1065 1070 | 3498 |
| ccg gaa acc att ttt gac aga gta tac aca att cag agc gat gtg Pro Glu Thr Ile Phe Asp Arg Val Tyr Thr Ile Gln Ser Asp Val 1075 1080 1085 | 3543 |
| tgg tct ttc ggt gtg ttg ctc tgg gaa ata ttt tcc tta ggt gcc Trp Ser Phe Gly Val Leu Leu Trp Glu Ile Phe Ser Leu Gly Ala 1090 1095 1100 | 3588 |
| tcc cca tac cct ggg gtc aag att gat gaa gaa ttt tgt agg aga Ser Pro Tyr Pro Gly Val Lys Ile Asp Glu Glu Phe Cys Arg Arg 1105 1110 1115 | 3633 |

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| ttg aaa gaa gga | act aga atg cgg gct | cct gac tac act acc | cca | 3678 |
| Leu Lys Glu Gly | Thr Arg Met Arg Ala | Pro Asp Tyr Thr Thr | Pro | |
| 1120 | 1125 | 1130 | | |
| gaa atg tac cag | acc atg ctg gac tgc | tgg cat gag gac ccc | aac | 3723 |
| Glu Met Tyr Gln | Thr Met Leu Asp Cys | Trp His Glu Asp Pro | Asn | |
| 1135 | 1140 | 1145 | | |
| cag aga ccc tcg | ttt tca gag ttg gtg | gag cat ttg gga aac | ctc | 3768 |
| Gln Arg Pro Ser | Phe Ser Glu Leu Val | Glu His Leu Gly Asn | Leu | |
| 1150 | 1155 | 1160 | | |
| ctg caa gca aat | gcg cag cag gat ggc | aaa gac tat att gtt | ctt | 3813 |
| Leu Gln Ala Asn | Ala Gln Gln Asp Gly | Lys Asp Tyr Ile Val | Leu | |
| 1165 | 1170 | 1175 | | |
| cca atg tca gag | aca ctg agc atg gaa | gag gat tct gga ctc | tcc | 3858 |
| Pro Met Ser Glu | Thr Leu Ser Met Glu | Glu Asp Ser Gly Leu | Ser | |
| 1180 | 1185 | 1190 | | |
| ctg cct acc tca | cct gtt tcc tgt atg | gag gaa gag gaa gtg | tgc | 3903 |
| Leu Pro Thr Ser | Pro Val Ser Cys Met | Glu Glu Glu Glu Val | Cys | |
| 1195 | 1200 | 1205 | | |
| gac ccc aaa ttc | cat tat gac aac aca | gca gga atc agt cat | tat | 3948 |
| Asp Pro Lys Phe | His Tyr Asp Asn Thr | Ala Gly Ile Ser His | Tyr | |
| 1210 | 1215 | 1220 | | |
| ctc cag aac agt | aag cga aag agc cg | cca gtg agt gta aaa | aca | 3993 |
| Leu Gln Asn Ser | Lys Arg Lys Ser Arg | Pro Val Ser Val Lys | Thr | |
| 1225 | 1230 | 1235 | | |
| ttt gaa gat atc | cca ttg gag gaa cca | gaa gta aaa gtg atc | cca | 4038 |
| Phe Glu Asp Ile | Pro Leu Glu Glu Pro | Glu Val Lys Val Ile | Pro | |
| 1240 | 1245 | 1250 | | |
| gat gac agc cag | aca gac agt ggg atg | gtc ctt gca tca gaa | gag | 4083 |
| Asp Asp Ser Gln | Thr Asp Ser Gly Met | Val Leu Ala Ser Glu | Glu | |
| 1255 | 1260 | 1265 | | |
| ctg aaa act ctg | gaa gac agg aac aaa | tta tct cca tct ttt | ggt | 4128 |
| Leu Lys Thr Leu | Glu Asp Arg Asn Lys | Leu Ser Pro Ser Phe | Gly | |
| 1270 | 1275 | 1280 | | |
| gga atg atg ccc | agt aaa agc agg gag | tct gtg gcc tcg gaa | ggc | 4173 |
| Gly Met Met Pro | Ser Lys Ser Arg Glu | Ser Val Ala Ser Glu | Gly | |
| 1285 | 1290 | 1295 | | |
| tcc aac cag acc | agt ggc tac cag tct | ggg tat cac tca gat | gac | 4218 |
| Ser Asn Gln Thr | Ser Gly Tyr Gln Ser | Gly Tyr His Ser Asp | Asp | |
| 1300 | 1305 | 1310 | | |
| aca gac acc acc | gtg tac tcc agc gac | gag gca gga ctt tta | aag | 4263 |
| Thr Asp Thr Thr | Val Tyr Ser Ser Asp | Glu Ala Gly Leu Leu | Lys | |
| 1315 | 1320 | 1325 | | |

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|--|---------------------|---------------------|-----|------|
| atg gtg gat gct | gca gtt cac gct gac | tca ggg acc aca ctg | cag | 4308 |
| Met Val Asp Ala | Ala Val His Ala Asp | Ser Gly Thr Thr Leu | Gln | |
| 1330 | 1335 | 1340 | | |
| ctc acc tcc tgt | tta aat gga agt ggt | cct gtc ccg gct ccg | ccc | 4353 |
| Leu Thr Ser Cys | Leu Asn Gly Ser Gly | Pro Val Pro Ala Pro | Pro | |
| 1345 | 1350 | 1355 | | |
| cca act cct gga | aat cac gag aga ggt | gct gct tagattttca | | 4396 |
| Pro Thr Pro Gly | Asn His Glu Arg Gly | Ala Ala | | |
| 1360 | 1365 | | | |
| agtgttgttc ttccaccac ccgaaatgg tagccatgg tttcatgg tggaggagg | | | | 4456 |
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| tgggtgagat gtcccagggc cgagtctgtc taccttggag gctttgtgga ggatgcgggc | | | | 4756 |
| tatgagccaa gtgttaagtg tggatgtgg actggagga aggaaggcgc aagtgcctcg | | | | 4816 |
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35 40 45

Leu Gln Ile Thr Cys Arg Gly Gln Arg Asp Leu Asp Trp Leu Trp Pro
50 55 60

Asn Ala Gln Arg Asp Ser Glu Glu Arg Val Leu Val Thr Glu Cys Gly
65 70 75 80

Gly Gly Asp Ser Ile Phe Cys Lys Thr Leu Thr Ile Pro Arg Val Val
85 90 95

Gly Asn Asp Thr Gly Ala Tyr Lys Cys Ser Tyr Arg Asp Val Asp Ile
100 105 110

Ala Ser Thr Val Tyr Val Tyr Val Arg Asp Tyr Arg Ser Pro Phe Ile
115 120 125

Ala Ser Val Ser Asp Gln His Gly Ile Val Tyr Ile Thr Glu Asn Lys
130 135 140

Asn Lys Thr Val Val Ile Pro Cys Arg Gly Ser Ile Ser Asn Leu Asn
145 150 155 160

Val Ser Leu Cys Ala Arg Tyr Pro Glu Lys Arg Phe Val Pro Asp Gly
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Asn Arg Ile Ser Trp Asp Ser Glu Ile Gly Phe Thr Leu Pro Ser Tyr
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Met Ile Ser Tyr Ala Gly Met Val Phe Cys Glu Ala Lys Ile Asn Asp
195 200 205

Glu Thr Tyr Gln Ser Ile Met Tyr Ile Val Val Val Gly Tyr Arg
210 215 220

Ile Tyr Asp Val Ile Leu Ser Pro Pro His Glu Ile Glu Leu Ser Ala
225 230 235 240

Gly Glu Lys Leu Val Leu Asn Cys Thr Ala Arg Thr Glu Leu Asn Val
 245 250 255

Gly Leu Asp Phe Thr Trp His Ser Pro Pro Ser Lys Ser His His Lys
 260 265 270

Lys Ile Val Asn Arg Asp Val Lys Pro Phe Pro Gly Thr Val Ala Lys
 275 280 285

Met Phe Leu Ser Thr Leu Thr Ile Glu Ser Val Thr Lys Ser Asp Gln
 290 295 300

Gly Glu Tyr Thr Cys Val Ala Ser Ser Gly Arg Met Ile Lys Arg Asn
 305 310 315 320

Arg Thr Phe Val Arg Val His Thr Lys Pro Phe Ile Ala Phe Gly Ser
 325 330 335

Gly Met Lys Ser Leu Val Glu Ala Thr Val Gly Ser Gln Val Arg Ile
 340 345 350

Pro Val Lys Tyr Leu Ser Tyr Pro Ala Pro Asp Ile Lys Trp Tyr Arg
 355 360 365

Asn Gly Arg Pro Ile Glu Ser Asn Tyr Thr Met Ile Val Gly Asp Glu
 370 375 380

Leu Thr Ile Met Glu Val Thr Glu Arg Asp Ala Gly Asn Tyr Thr Val
 385 390 395 400

Ile Leu Thr Asn Pro Ile Ser Met Glu Lys Gln Ser His Met Val Ser
 405 410 415

Leu Val Val Asn Val Pro Pro Gln Ile Gly Glu Lys Ala Leu Ile Ser
 420 425 430

Pro Met Asp Ser Tyr Gln Tyr Gly Thr Met Gln Thr Leu Thr Cys Thr
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Val Tyr Ala Asn Pro Pro Leu His His Ile Gln Trp Tyr Trp Gln Leu
 450 455 460

Glu Glu Ala Cys Ser Tyr Arg Pro Gly Gln Thr Ser Pro Tyr Ala Cys
 465 470 475 480

Lys Glu Trp Arg His Val Glu Asp Phe Gln Gly Gly Asn Lys Ile Glu
485 490 495

Val Thr Lys Asn Gln Tyr Ala Leu Ile Glu Gly Lys Asn Lys Thr Val
500 505 510

Ser Thr Leu Val Ile Gln Ala Ala Asn Val Ser Ala Leu Tyr Lys Cys
515 520 525

Glu Ala Ile Asn Lys Ala Gly Arg Gly Glu Arg Val Ile Ser Phe His
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Val Ile Arg Gly Pro Glu Ile Thr Val Gln Pro Ala Ala Gln Pro Thr
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Glu Gln Glu Ser Val Ser Leu Leu Cys Thr Ala Asp Arg Asn Thr Phe
565 570 575

Glu Asn Leu Thr Trp Tyr Lys Leu Gly Ser Gln Ala Thr Ser Val His
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Met Gly Glu Ser Leu Thr Pro Val Cys Lys Asn Leu Asp Ala Leu Trp
595 600 605

Lys Leu Asn Gly Thr Met Phe Ser Asn Ser Thr Asn Asp Ile Leu Ile
610 615 620

Val Ala Phe Gln Asn Ala Ser Leu Gln Asp Gln Gly Asp Tyr Val Cys
625 630 635 640

Ser Ala Gln Asp Lys Lys Thr Lys Lys Arg His Cys Leu Val Lys Gln
645 650 655

Leu Ile Ile Leu Glu Arg Met Ala Pro Met Ile Thr Gly Asn Leu Glu
660 665 670

Asn Gln Thr Thr Ile Gly Glu Thr Ile Glu Val Thr Cys Pro Ala
675 680 685

Ser Gly Asn Pro Thr Pro His Ile Thr Trp Phe Lys Asp Asn Glu Thr
690 695 700

Leu Val Glu Asp Ser Gly Ile Val Leu Arg Asp Gly Asn Arg Asn Leu
 705 710 715 720

Thr Ile Arg Arg Val Arg Lys Glu Asp Gly Gly Leu Tyr Thr Cys Gln
 725 730 735

Ala Cys Asn Val Leu Gly Cys Ala Arg Ala Glu Thr Leu Phe Ile Ile
 740 745 750

Glu Gly Ala Gln Glu Lys Thr Asn Leu Glu Val Ile Ile Leu Val Gly
 755 760 765

Thr Ala Val Ile Ala Met Phe Phe Trp Leu Leu Leu Val Ile Val Leu
 770 775 780

Arg Thr Val Lys Arg Ala Asn Glu Gly Glu Leu Lys Thr Gly Tyr Leu
 785 790 795 800

Ser Ile Val Met Asp Pro Asp Glu Leu Pro Leu Asp Glu Arg Cys Glu
 805 810 815

Arg Leu Pro Tyr Asp Ala Ser Lys Trp Glu Phe Pro Arg Asp Arg Leu
 820 825 830

Lys Leu Gly Lys Pro Leu Gly Arg Gly Ala Phe Gly Gln Val Ile Glu
 835 840 845

Ala Asp Ala Phe Gly Ile Asp Lys Thr Ala Thr Cys Lys Thr Val Ala
 850 855 860

Val Lys Met Leu Lys Glu Gly Ala Thr His Ser Glu His Arg Ala Leu
 865 870 875 880

Met Ser Glu Leu Lys Ile Leu Ile His Ile Gly His His Leu Asn Val
 885 890 895

Val Asn Leu Leu Gly Ala Cys Thr Lys Pro Gly Gly Pro Leu Met Val
 900 905 910

Ile Val Glu Phe Cys Lys Phe Gly Asn Leu Ser Thr Tyr Leu Arg Gly
 915 920 925

Lys Arg Asn Glu Phe Val Pro Tyr Lys Ser Lys Gly Ala Arg Phe Arg
 930 935 940

Gln Gly Lys Asp Tyr Val Gly Glu Leu Ser Val Asp Leu Lys Arg Arg
 945 950 955 960

Leu Asp Ser Ile Thr Ser Ser Gln Ser Ser Ala Ser Ser Gly Phe Val
 965 970 975

Glu Glu Lys Ser Leu Ser Asp Val Glu Glu Glu Glu Ala Ser Glu Glu
 980 985 990

Leu Tyr Lys Asp Phe Leu Thr Leu Glu His Leu Ile Cys Tyr Ser Phe
 995 1000 1005

Gln Val Ala Lys Gly Met Glu Phe Leu Ala Ser Arg Lys Cys Ile
 1010 1015 1020

His Arg Asp Leu Ala Ala Arg Asn Ile Leu Leu Ser Glu Lys Asn
 1025 1030 1035

Val Val Lys Ile Cys Asp Phe Gly Leu Ala Arg Asp Ile Tyr Lys
 1040 1045 1050

Asp Pro Asp Tyr Val Arg Lys Gly Asp Ala Arg Leu Pro Leu Lys
 1055 1060 1065

Trp Met Ala Pro Glu Thr Ile Phe Asp Arg Val Tyr Thr Ile Gln
 1070 1075 1080

Ser Asp Val Trp Ser Phe Gly Val Leu Leu Trp Glu Ile Phe Ser
 1085 1090 1095

Leu Gly Ala Ser Pro Tyr Pro Gly Val Lys Ile Asp Glu Glu Phe
 1100 1105 1110

Cys Arg Arg Leu Lys Glu Gly Thr Arg Met Arg Ala Pro Asp Tyr
 1115 1120 1125

Thr Thr Pro Glu Met Tyr Gln Thr Met Leu Asp Cys Trp His Glu
 1130 1135 1140

Asp Pro Asn Gln Arg Pro Ser Phe Ser Glu Leu Val Glu His Leu
 1145 1150 1155

Gly Asn Leu Leu Gln Ala Asn Ala Gln Gln Asp Gly Lys Asp Tyr
1160 1165 1170

Ile Val Leu Pro Met Ser Glu Thr Leu Ser Met Glu Glu Asp Ser
1175 1180 1185

Gly Leu Ser Leu Pro Thr Ser Pro Val Ser Cys Met Glu Glu Glu
1190 1195 1200

Glu Val Cys Asp Pro Lys Phe His Tyr Asp Asn Thr Ala Gly Ile
1205 1210 1215

Ser His Tyr Leu Gln Asn Ser Lys Arg Lys Ser Arg Pro Val Ser
1220 1225 1230

Val Lys Thr Phe Glu Asp Ile Pro Leu Glu Glu Pro Glu Val Lys
1235 1240 1245

Val Ile Pro Asp Asp Ser Gln Thr Asp Ser Gly Met Val Leu Ala
1250 1255 1260

Ser Glu Glu Leu Lys Thr Leu Glu Asp Arg Asn Lys Leu Ser Pro
1265 1270 1275

Ser Phe Gly Gly Met Met Pro Ser Lys Ser Arg Glu Ser Val Ala
1280 1285 1290

Ser Glu Gly Ser Asn Gln Thr Ser Gly Tyr Gln Ser Gly Tyr His
1295 1300 1305

Ser Asp Asp Thr Asp Thr Thr Val Tyr Ser Ser Asp Glu Ala Gly
1310 1315 1320

Leu Leu Lys Met Val Asp Ala Ala Val His Ala Asp Ser Gly Thr
1325 1330 1335

Thr Leu Gln Leu Thr Ser Cys Leu Asn Gly Ser Gly Pro Val Pro
1340 1345 1350

Ala Pro Pro Pro Thr Pro Gly Asn His Glu Arg Gly Ala Ala
1355 1360 1365

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 oligonucleotide

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 oligonucleotide

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Thr Arg Ala Ala Ser Val Gly Leu Thr Gly Asp Phe Leu His Pro Pro
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Lys Leu Ser Thr Gln Lys Asp Ile Leu Thr Ile Leu Ala Asn Thr Thr
 35 40 45

Leu Gln Ile Thr Cys Arg Gly Gln Arg Asp Leu Asp Trp Leu Trp Pro
 50 55 60

Asn Ala Gln Arg Asp Ser Glu Glu Arg Val Leu Val Thr Glu Cys Gly
 65 70 75 80

Gly Gly Asp Ser Ile Phe Cys Lys Thr Leu Thr Ile Pro Arg Val Val
 85 90 95

Gly Asn Asp Thr Gly Ala Tyr Lys Cys Ser Tyr Arg Asp Val Asp Ile
 100 105 110

Ala Ser Thr Val Tyr Val Tyr Val Arg Asp Tyr Arg Ser Pro Phe Ile
115 120 125

Ala Ser Val Ser Asp Gln His Gly Ile Val Tyr Ile Thr Glu Asn Lys
130 135 140

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Lys | Thr | Val | Val | Ile | Pro | Cys | Arg | Gly | Ser | Ile | Ser | Asn | Leu | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

Val Ser Leu Cys Ala Arg Tyr Pro Glu Lys Arg Phe Val Pro Asp Gly
165 170 175

Met Ile Ser Tyr Ala Gly Met Val Phe Cys Glu Ala Lys Ile Asn Asp
195 200 205

Glu Thr Tyr Gln Ser Ile Met Tyr Ile Val Val Val Val Gly Tyr Arg
210 215 220

Ile Tyr Asp Val Ile Leu Ser Pro Pro His Glu Ile Glu Leu Ser Ala
225 230 235 240

Gly Glu Lys Leu Val Leu Asn Cys Thr Ala Arg Thr Glu Leu Asn Val
245 250 255

Gly Leu Asp Phe Thr Trp His Ser Pro Pro Ser Lys Ser His His Lys
 260 265 270

Lys Ile Val Asn Arg Asp Val Lys Pro Phe Pro Gly Thr Val Ala Lys
275 280 285

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Phe | Leu | Ser | Thr | Leu | Thr | Ile | Glu | Ser | Val | Thr | Lys | Ser | Asp | Gln |
| 290 | | | | | | 295 | | | | | | 300 | | | |

Gly Glu Tyr Thr Cys Val Ala Ser Ser Gly Arg Met Ile Lys Arg Asn
305 310 315 320

Arg Thr Phe Val Arg Val His Thr Lys Pro Phe Ile Ala Phe Gly Ser
 325 330 335

Gly Met Lys Ser Leu Val Glu Ala Thr Val Gly Ser Gln Val Arg Ile
 340 345 350

Pro Val Lys Tyr Leu Ser Tyr Pro Ala Pro Asp Ile Lys Trp Tyr Arg
 355 360 365

Asn Gly Arg Pro Ile Glu Ser Asn Tyr Thr Met Ile Val Gly Asp Glu
 370 375 380

Leu Thr Ile Met Glu Val Thr Glu Arg Asp Ala Gly Asn Tyr Thr Val
 385 390 395 400

Ile Leu Thr Asn Pro Ile Ser Met Glu Lys Gln Ser His Met Val Ser
 405 410 415

Leu Val Val Asn Val Pro Pro Gln Ile Gly Glu Lys Ala Leu Ile Ser
 420 425 430

Pro Met Asp Ser Tyr Gln Tyr Gly Thr Met Gln Thr Leu Thr Cys Thr
 435 440 445

Val Tyr Ala Asn Pro Pro Leu His His Ile Gln Trp Tyr Trp Gln Leu
 450 455 460

Glu Glu Ala Cys Ser Tyr Arg Pro Gly Gln Thr Ser Pro Tyr Ala Cys
 465 470 475 480

Lys Glu Trp Arg His Val Glu Asp Phe Gln Gly Gly Asn Lys Ile Glu
 485 490 495

Val Thr Lys Asn Gln Tyr Ala Leu Ile Glu Gly Lys Asn Lys Thr Val
 500 505 510

Ser Thr Leu Val Ile Gln Ala Ala Asn Val Ser Ala Leu Tyr Lys Cys
 515 520 525

Glu Ala Ile Asn Lys Ala Gly Arg Gly Glu Arg Val Ile Ser Phe His
 530 535 540

Val Ile Arg Gly Pro Glu Ile Thr Val Gln Pro Ala Ala Gln Pro Thr
 545 550 555 560

Glu Gln Glu Ser Val Ser Leu Leu Cys Thr Ala Asp Arg Asn Thr Phe
 565 570 575

Glu Asn Leu Thr Trp Tyr Lys Leu Gly Ser Gln Ala Thr Ser Val His
 580 585 590

Met Gly Glu Ser Leu Thr Pro Val Cys Lys Asn Leu Asp Ala Leu Trp
 595 600 605

Lys Leu Asn Gly Thr Met Phe Ser Asn Ser Thr Asn Asp Ile Leu Ile
 610 615 620

Val Ala Phe Gln Asn Ala Ser Leu Gln Asp Gln Gly Asp Tyr Val Cys
 625 630 635 640

Ser Ala Gln Asp Lys Lys Thr Lys Lys Arg His Cys Leu Val Lys Gln
 645 650 655

Leu Ile Ile Leu Glu Arg Met Ala Pro Met Ile Thr Gly Asn Leu Glu
 660 665 670

Asn Gln Thr Thr Ile Gly Glu Thr Ile Glu Val Thr Cys Pro Ala
 675 680 685

Ser Gly Asn Pro Thr Pro His Ile Thr Trp Phe Lys Asp Asn Glu Thr
 690 695 700

Leu Val Glu Asp Ser Gly Ile Val Leu Arg Asp Gly Asn Arg Asn Leu
 705 710 715 720

Thr Ile Arg Arg Val Arg Lys Glu Asp Gly Gly Leu Tyr Thr Cys Gln
 725 730 735

Ala Cys Asn Val Leu Gly Cys Ala Arg Ala Glu Thr Leu Phe Ile Ile
 740 745 750

Glu Gly Ala Gln Glu Lys Thr Asn Leu Glu Val Ile Ile Leu Val Gly
 755 760 765

Thr Ala Val Ile Ala Met Phe Phe Trp Leu Leu Leu Val Ile Val Leu
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Arg Thr Val Lys Arg Ala Asn Glu Gly Glu Leu Lys Thr Gly Tyr Leu
 785 790 795 800

Ser Ile Val Met Asp Pro
805

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<212> PRT
<213> Mus musculus

<400> 6
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Ala Cys Thr Lys Pro Gly Gly Pro Leu Met Val Ile Val Glu Phe Cys
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Lys Phe Gly Asn Leu Ser Thr Tyr Leu Arg Gly Lys Arg Asn Glu Phe
35 40 45

Val Pro Tyr Lys Ser Lys Gly Ala Arg Phe Arg Gln Gly Lys Asp Tyr
50 55 60

Val Gly Glu Leu Ser Val Asp Leu Lys Arg Arg Leu Asp Ser Ile Thr
65 70 75 80

Ser Ser Gln Ser Ser Ala Ser Ser Gly Phe Val Glu Glu Lys Ser Leu
85 90 95

Ser Asp Val Glu Glu Glu Ala Ser Glu Glu Leu Tyr Lys Asp Phe
100 105 110

Leu Thr Leu Glu His Leu Ile Cys Tyr Ser Phe Gln Val Ala Lys Gly
115 120 125

Met Glu Phe Leu Ala Ser Arg Lys Cys Ile His Arg Asp Leu Ala Ala
130 135 140

Arg Asn Ile Leu Leu Ser Glu Lys Asn Val Val Lys Ile Cys Asp Phe
145 150 155 160

Gly Leu Ala Arg Asp Ile Tyr Lys Asp Pro Asp Tyr Val Arg Lys Gly
165 170 175

Asp Ala Arg Leu
180

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<220>
<221> CDS
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| Arg Gly Ser Ile Ser Asn Leu Asn Val Ser Leu Cys Ala Arg Tyr Pro | |
| 155 | 160 |
| 160 | 165 |
| | |
| gaa aag aga ttt gtt ccg gat gga aac aga att tcc tgg gac agc gag | 761 |
| Glu Lys Arg Phe Val Pro Asp Gly Asn Arg Ile Ser Trp Asp Ser Glu | |
| 170 | 175 |
| 175 | 180 |
| | |
| ata ggc ttt act ctc ccc agt tac atg atc agc tat gcc ggc atg gtc | 809 |
| Ile Gly Phe Thr Leu Pro Ser Tyr Met Ile Ser Tyr Ala Gly Met Val | |
| 185 | 190 |
| 190 | 195 |
| 195 | 200 |
| | |
| ttc tgt gag gca aag atc aat gat gaa acc tat cag tct atc atg tac | 857 |
| Phe Cys Glu Ala Lys Ile Asn Asp Glu Thr Tyr Gln Ser Ile Met Tyr | |
| 205 | 210 |
| 210 | 215 |
| | |
| ata gtt gtg gtt gta gga tat agg att tat gat gtg att ctg agc ccc | 905 |
| Ile Val Val Val Gly Tyr Arg Ile Tyr Asp Val Ile Leu Ser Pro | |
| 220 | 225 |
| 225 | 230 |
| | |
| ccg cat gaa att gag cta tct gcc gga gaa aaa ctt gtc tta aat tgt | 953 |
| Pro His Glu Ile Glu Leu Ser Ala Gly Glu Lys Leu Val Leu Asn Cys | |
| 235 | 240 |
| 240 | 245 |
| | |
| aca gcg aga aca gag ctc aat gtg ggg ctt gat ttc acc tgg cac tct | 1001 |
| Thr Ala Arg Thr Glu Leu Asn Val Gly Leu Asp Phe Thr Trp His Ser | |
| 250 | 255 |
| 255 | 260 |
| | |
| cca cct tca aag tct cat cat aag aag att gta aac cgg gat gtg aaa | 1049 |
| Pro Pro Ser Lys Ser His His Lys Lys Ile Val Asn Arg Asp Val Lys | |
| 265 | 270 |
| 270 | 275 |
| 275 | 280 |
| | |
| ccc ttt cct ggg act gtg gcg aag atg ttt ttg agc acc ttg aca ata | 1097 |
| Pro Phe Pro Gly Thr Val Ala Lys Met Phe Leu Ser Thr Leu Thr Ile | |
| 285 | 290 |
| 290 | 295 |
| | |
| gaa agt gtg acc aag agt gac caa ggg gaa tac acc tgt gta gcg tcc | 1145 |
| Glu Ser Val Thr Lys Ser Asp Gln Gly Glu Tyr Thr Cys Val Ala Ser | |
| 300 | 305 |
| 305 | 310 |
| | |
| agt gga cgg atg atc aag aga aat aga aca ttt gtc cga gtt cac aca | 1193 |
| Ser Gly Arg Met Ile Lys Arg Asn Arg Thr Phe Val Arg Val His Thr | |
| 315 | 320 |
| 320 | 325 |
| | |
| aag cct ttt att gct ttc ggt agt ggg atg aaa tct ttg gtg gaa gcc | 1241 |
| Lys Pro Phe Ile Ala Phe Gly Ser Gly Met Lys Ser Leu Val Glu Ala | |
| 330 | 335 |
| 335 | 340 |
| | |
| aca gtg ggc agt caa gtc cga atc cct gtg aag tat ctc agt tac cca | 1289 |
| Thr Val Gly Ser Gln Val Arg Ile Pro Val Lys Tyr Leu Ser Tyr Pro | |
| 345 | 350 |
| 350 | 355 |
| 355 | 360 |
| | |
| gct cct gat atc aaa tgg tac aga aat gga agg ccc att gag tcc aac | 1337 |
| Ala Pro Asp Ile Lys Trp Tyr Arg Asn Gly Arg Pro Ile Glu Ser Asn | |
| 365 | 370 |
| 370 | 375 |

| | |
|---|------|
| tac aca atg att gtt ggc gat gaa ctc acc atc atg gaa gtg act gaa Tyr Thr Met Ile Val Gly Asp Glu Leu Thr Ile Met Glu Val Thr Glu 380 385 390 | 1385 |
| aga gat gca gga aac tac acg gtc atc ctc acc aac ccc att tca atg Arg Asp Ala Gly Asn Tyr Thr Val Ile Leu Thr Asn Pro Ile Ser Met 395 400 405 | 1433 |
| gag aaa cag agc cac atg gtc tct ctg gtt gtg aat gtc cca ccc cag Glu Lys Gln Ser His Met Val Ser Leu Val Val Asn Val Pro Pro Gln 410 415 420 | 1481 |
| atc ggt gag aaa gcc ttg atc tcg cct atg gat tcc tac cag tat ggg Ile Gly Glu Lys Ala Leu Ile Ser Pro Met Asp Ser Tyr Gln Tyr Gly 425 430 435 440 | 1529 |
| acc atg cag aca ttg aca tgc aca gtc tac gcc aac cct ccc ctg cac Thr Met Gln Thr Leu Thr Cys Thr Val Tyr Ala Asn Pro Pro Leu His 445 450 455 | 1577 |
| cac atc cag tgg tac tgg cag cta gaa gaa gcc tgc tcc tac aga ccc His Ile Gln Trp Tyr Trp Gln Leu Glu Ala Cys Ser Tyr Arg Pro 460 465 470 | 1625 |
| ggc caa aca agc ccg tat gct tgt aaa gaa tgg aga cac gtg gag gat Gly Gln Thr Ser Pro Tyr Ala Cys Lys Glu Trp Arg His Val Glu Asp 475 480 485 | 1673 |
| ttc cag ggg gga aac aag atc gaa gtc acc aaa aac caa tat gcc ctg Phe Gln Gly Gly Asn Lys Ile Glu Val Thr Lys Asn Gln Tyr Ala Leu 490 495 500 | 1721 |
| att gaa gga aaa aac aaa act gta agt acg ctg gtc atc caa gct gcc Ile Glu Gly Lys Asn Lys Thr Val Ser Thr Leu Val Ile Gln Ala Ala 505 510 515 520 | 1769 |
| aac gtg tca gcg ttg tac aaa tgt gaa gcc atc aac aaa gcg gga cga Asn Val Ser Ala Leu Tyr Lys Cys Glu Ala Ile Asn Lys Ala Gly Arg 525 530 535 | 1817 |
| gga gag agg gtc atc tcc ttc cat gtg atc agg ggt cct gaa att act Gly Glu Arg Val Ile Ser Phe His Val Ile Arg Gly Pro Glu Ile Thr 540 545 550 | 1865 |
| gtg caa cct gct gcc cag cca act gag cag gag agt gtg tcc ctg ttg Val Gln Pro Ala Ala Gln Pro Thr Glu Gln Glu Ser Val Ser Leu Leu 555 560 565 | 1913 |
| tgc act gca gac aga aat acg ttt gag aac ctc acg tgg tac aag ctt Cys Thr Ala Asp Arg Asn Thr Phe Glu Asn Leu Thr Trp Tyr Lys Leu 570 575 580 | 1961 |
| ggc tca cag gca aca tcg gtc cac atg ggc gaa tca ctc aca cca gtt Gly Ser Gln Ala Thr Ser Val His Met Gly Glu Ser Leu Thr Pro Val 585 590 595 600 | 2009 |

| | |
|---|------|
| tgc aag aac ttg gat gct ctt tgg aaa ctg aat ggc acc atg ttt tct Cys Lys Asn Leu Asp Ala Leu Trp Lys Leu Asn Gly Thr Met Phe Ser 605 610 615 | 2057 |
| aac agc aca aat gac atc ttg att gtg gca ttt cag aat gcc tct ctg Asn Ser Thr Asn Asp Ile Leu Ile Val Ala Phe Gln Asn Ala Ser Leu 620 625 630 | 2105 |
| cag gac caa ggc gac tat gtt tgc tct gct caa gat aag aag acc aag Gln Asp Gln Gly Asp Tyr Val Cys Ser Ala Gln Asp Lys Lys Thr Lys 635 640 645 | 2153 |
| aaa aga cat tgc ctg gtc aaa cag ctc atc atc cta gag cgc atg gca Lys Arg His Cys Leu Val Lys Gln Leu Ile Ile Leu Glu Arg Met Ala 650 655 660 | 2201 |
| ccc atg atc acc gga aat ctg gag aat cag aca aca acc att ggc gag Pro Met Ile Thr Gly Asn Leu Glu Asn Gln Thr Thr Ile Gly Glu 665 670 675 680 | 2249 |
| acc att gaa gtg act tgc cca gca tct gga aat cct acc cca cac att Thr Ile Glu Val Thr Cys Pro Ala Ser Gly Asn Pro Thr Pro His Ile 685 690 695 | 2297 |
| aca tgg ttc aaa gac aac gag acc ctg gta gaa gat tca ggc att gta Thr Trp Phe Lys Asp Asn Glu Thr Leu Val Glu Asp Ser Gly Ile Val 700 705 710 | 2345 |
| ctg aga gat ggg aac cgg aac ctg act atc cgc agg gtg agg aag gag Leu Arg Asp Gly Asn Arg Asn Leu Thr Ile Arg Arg Val Arg Lys Glu 715 720 725 | 2393 |
| gat gga ggc ctc tac acc tgc cag gcc tgc aat gtc ctt ggc tgt gca Asp Gly Gly Leu Tyr Thr Cys Gln Ala Cys Asn Val Leu Gly Cys Ala 730 735 740 | 2441 |
| aga gcg gag acg ctc ttc ata ata gaa ggt gcc cag gaa aag acc aac Arg Ala Glu Thr Leu Phe Ile Ile Glu Gly Ala Gln Glu Lys Thr Asn 745 750 755 760 | 2489 |
| ttg gaa gtc att atc ctc gtc ggc act gca gtg att gcc atg ttc ttc Leu Glu Val Ile Ile Leu Val Gly Thr Ala Val Ile Ala Met Phe Phe 765 770 775 | 2537 |
| tgg ctc ctt ctt gtc att gtc cta cgg acc gtt aag cgg gcc aat gaa Trp Leu Leu Leu Val Ile Val Leu Arg Thr Val Lys Arg Ala Asn Glu 780 785 790 | 2585 |
| ggg gaa ctg aag aca ggc tac ttg tct att gtc atg gat cca gat gaa Gly Glu Leu Lys Thr Gly Tyr Leu Ser Ile Val Met Asp Pro Asp Glu 795 800 805 | 2633 |
| ttg ccc ttg gat gag cgc tgt gaa cgc ttg cct tat gat gcc agc aag Leu Pro Leu Asp Glu Arg Cys Glu Arg Leu Pro Tyr Asp Ala Ser Lys 810 815 820 | 2681 |

| | | | |
|---|---|------|------|
| tgg gaa ttc ccc agg gac cg | ctg aaa cta gga aaa cct ctt ggc cgc | 2729 | |
| Trp Glu Phe Pro Arg Asp Arg Leu Lys Leu Gly Lys Pro Leu Gly Arg | | | |
| 825 830 | 835 | 840 | |
| ggt gcc ttc ggc caa gtg att gag gca gac gct ttt gga att gac aag | Gly Ala Phe Gly Gln Val Ile Glu Ala Asp Ala Phe Gly Ile Asp Lys | 2777 | |
| 845 | 850 | 855 | |
| aca gcg act tgc aaa aca gta gcc gtc aag atg ttg aaa gaa gga gca | Thr Ala Thr Cys Lys Thr Val Ala Val Lys Met Leu Lys Glu Gly Ala | 2825 | |
| 860 | 865 | 870 | |
| aca cac agc gag cat cga gcc ctc atg tct gaa ctc aag atc ctc atc | Thr His Ser Glu His Arg Ala Leu Met Ser Glu Leu Lys Ile Leu Ile | 2873 | |
| 875 | 880 | 885 | |
| cac att ggt cac cat ctc aat gtg gtg aac ctc cta ggc gcc tgc acc | His Ile Gly His His Leu Asn Val Val Asn Leu Leu Gly Ala Cys Thr | 2921 | |
| 890 | 895 | 900 | |
| aag ccg gga ggg cct ctc atg gtg att ctg caa ttc tcg aag ttt gga | Lys Pro Gly Gly Pro Leu Met Val Ile Leu Gln Phe Ser Lys Phe Gly | 2969 | |
| 905 | 910 | 915 | 920 |
| aac cta tca act tac tta cgg ggc aag aga aat gaa ttt gtt ccc tat | Asn Leu Ser Thr Tyr Leu Arg Gly Lys Arg Asn Glu Phe Val Pro Tyr | 3017 | |
| 925 | 930 | 935 | |
| aag agc aaa ggg gca cgc ttc cgc cag ggc aag gac tac gtt ggg gag | Lys Ser Lys Gly Ala Arg Phe Arg Gln Gly Lys Asp Tyr Val Gly Glu | 3065 | |
| 940 | 945 | 950 | |
| ctc tcc gtg gat ctg aaa aga cgc ttg gac agc atc acc agc agc cag | Leu Ser Val Asp Leu Lys Arg Arg Leu Asp Ser Ile Thr Ser Ser Gln | 3113 | |
| 955 | 960 | 965 | |
| agc tct gcc agc tca ggc ttt gtt gag gag aaa tcg ctc agt gat gta | Ser Ser Ala Ser Ser Gly Phe Val Glu Glu Lys Ser Leu Ser Asp Val | 3161 | |
| 970 | 975 | 980 | |
| gag gaa gaa gaa gct tct gaa gaa ctg tac aag gac ttc ctg acc ttg | Glu Glu Glu Ala Ser Glu Glu Leu Tyr Lys Asp Phe Leu Thr Leu | 3209 | |
| 985 | 990 | 995 | 1000 |
| gag cat ctc atc tgt tac agc ttc caa gtg gct aag ggc atg gag | Glu His Leu Ile Cys Tyr Ser Phe Gln Val Ala Lys Gly Met Glu | 3254 | |
| 1005 | 1010 | 1015 | |
| ttc ttg gca tca agg aag tgt atc cac agg gac ctg gca gca cga | Phe Leu Ala Ser Arg Lys Cys Ile His Arg Asp Leu Ala Ala Arg | 3299 | |
| 1020 | 1025 | 1030 | |
| aac att ctc cta tcg gag aag aat gtg gtt aag atc tgt gac ttc | Asn Ile Leu Leu Ser Glu Lys Asn Val Val Lys Ile Cys Asp Phe | 3344 | |
| 1035 | 1040 | 1045 | |

| | | | |
|---------------------|-------------------------|---------------------|------|
| ggc ttg gcc cg | gac att tat aaa gac ccg | gat tat gtc aga aaa | 3389 |
| Gly Leu Ala Arg Asp | Ile Tyr Lys Asp Pro | Asp Tyr Val Arg Lys | |
| 1050 | 1055 | 1060 | |
| gga gat gcc cga ctc | cct ttg aag tgg atg | gcc ccg gaa acc att | 3434 |
| Gly Asp Ala Arg Leu | Pro Leu Lys Trp Met | Ala Pro Glu Thr Ile | |
| 1065 | 1070 | 1075 | |
| ttt gac aga gta tac | aca att cag agc gat | gtg tgg tct ttc ggt | 3479 |
| Phe Asp Arg Val Tyr | Thr Ile Gln Ser Asp | Val Trp Ser Phe Gly | |
| 1080 | 1085 | 1090 | |
| gtg ttg ctc tgg gaa | ata ttt tcc tta ggt | gcc tcc cca tac cct | 3524 |
| Val Leu Leu Trp Glu | Ile Phe Ser Leu Gly | Ala Ser Pro Tyr Pro | |
| 1095 | 1100 | 1105 | |
| ggg gtc aag att gat | gaa gaa ttt tgt agg | aga ttg aaa gaa gga | 3569 |
| Gly Val Lys Ile Asp | Glu Glu Phe Cys Arg | Arg Leu Lys Glu Gly | |
| 1110 | 1115 | 1120 | |
| act aga atg cgg gct | cct gac tac act acc | cca gaa atg tac cag | 3614 |
| Thr Arg Met Arg Ala | Pro Asp Tyr Thr | Pro Glu Met Tyr Gln | |
| 1125 | 1130 | 1135 | |
| acc atg ctg gac tgc | tgg cat gag gac ccc | aac cag aga ccc tcg | 3659 |
| Thr Met Leu Asp Cys | Trp His Glu Asp Pro | Asn Gln Arg Pro Ser | |
| 1140 | 1145 | 1150 | |
| ttt tca gag ttg gtg | gag cat ttg gga aac | ctc ctg caa gca aat | 3704 |
| Phe Ser Glu Leu Val | Glu His Leu Gly Asn | Leu Leu Gln Ala Asn | |
| 1155 | 1160 | 1165 | |
| gcg cag cag gat ggc | aaa gac tat att gtt | ctt cca atg tca gag | 3749 |
| Ala Gln Gln Asp Gly | Lys Asp Tyr Ile Val | Leu Pro Met Ser Glu | |
| 1170 | 1175 | 1180 | |
| aca ctg agc atg gaa | gag gat tct gga ctc | tcc ctg cct acc tca | 3794 |
| Thr Leu Ser Met Glu | Glu Asp Ser Gly Leu | Ser Leu Pro Thr Ser | |
| 1185 | 1190 | 1195 | |
| cct gtt tcc tgt atg | gag gaa gag gaa gtg | tgc gac ccc aaa ttc | 3839 |
| Pro Val Ser Cys Met | Glu Glu Glu Glu Val | Cys Asp Pro Lys Phe | |
| 1200 | 1205 | 1210 | |
| cat tat gac aac aca | gca gga atc agt cat | tat ctc cag aac agt | 3884 |
| His Tyr Asp Asn Thr | Ala Gly Ile Ser His | Tyr Leu Gln Asn Ser | |
| 1215 | 1220 | 1225 | |
| aag cga aag agc cgg | cca gtg agt gta aaa | aca ttt gaa gat atc | 3929 |
| Lys Arg Lys Ser Arg | Pro Val Ser Val Lys | Thr Phe Glu Asp Ile | |
| 1230 | 1235 | 1240 | |
| cca ttg gag gaa cca | gaa gta aaa gtg atc | cca gat gac agc cag | 3974 |
| Pro Leu Glu Glu Pro | Glu Val Lys Val Ile | Pro Asp Asp Ser Gln | |
| 1245 | 1250 | 1255 | |

| | | | |
|------------------------|------------------------|-----------------------|------|
| aca gac agt ggg atg | gtc ctt gca tca gaa | gag ctg aaa act ctg | 4019 |
| Thr Asp Ser Gly Met | Val Leu Ala Ser Glu | Glu Leu Lys Thr Leu | |
| 1260 | 1265 | 1270 | |
| gaa gac agg aac aaa | tta tct cca tct ttt | ggt gga atg atg ccc | 4064 |
| Glu Asp Arg Asn Lys | Leu Ser Pro Ser Phe | Gly Gly Met Met Pro | |
| 1275 | 1280 | 1285 | |
| agt aaa agc agg gag | tct gtg gcc tcg gaa | ggc tcc aac cag acc | 4109 |
| Ser Lys Ser Arg Glu | Ser Val Ala Ser Glu | Gly Ser Asn Gln Thr | |
| 1290 | 1295 | 1300 | |
| agt ggc tac cag tct | ggg tat cac tca gat | gac aca gac acc acc | 4154 |
| Ser Gly Tyr Gln Ser | Gly Tyr His Ser Asp | Asp Thr Asp Thr Thr | |
| 1305 | 1310 | 1315 | |
| gtg tac tcc agc gac | gag gca gga ctt tta | aag atg gtg gat gct | 4199 |
| Val Tyr Ser Ser Asp | Glu Ala Gly Leu Leu | Lys Met Val Asp Ala | |
| 1320 | 1325 | 1330 | |
| gca gtt cac gct gac | tca ggg acc aca ctg | agc tca cct cct gtt | 4244 |
| Ala Val His Ala Asp | Ser Gly Thr Thr Leu | Ser Ser Pro Pro Val | |
| 1335 | 1340 | 1345 | |
| taaatggaag tggcctgtc | ccggctccgc ccccaactcc | tggaaatcac gagagaggtg | 4304 |
| ctgcttagat tttcaagtgt | tgttctttcc accaccggaa | agtagccaca tttgattttc | 4364 |
| atttttggag gagggacctc | agactgcaag gagcttgtcc | tcagggcatt tccagagaag | 4424 |
| atgccccatga cccagaatg | tgttgactct actctctttt | ccattcattt aaaagtccct | 4484 |
| tataatgtgc cctgctgtgg | tctcaactacc agttaaagca | aaagactttc aaacacgtgg | 4544 |
| actctgtcct ccaagaatg | gcaacggcac ctctgtaaa | ctggatcgaa tgggcaatgc | 4604 |
| tttgtgtgtt gaggatgggt | gagatgtccc agggccgagt | ctgtctacct tggaggcttt | 4664 |
| gtggaggatg cggcgtatga | gccaaatgttt aagtgtggaa | tgtggactgg gaggaaggaa | 4724 |
| ggcgcaagcc gtccggagag | cgggtggagc ctgcagatgc | attgtgtgg ctctgggtgg | 4784 |
| ggtgggcttg tggcctgtca | ggaaacgcaa aggcggccgg | cagggtttgg ttttggagg | 4844 |
| tttgcgtgct cttcacagtc | gggttacagg cgagttccct | gtggcgtttc ctactcctaa | 4904 |
| tgagagttcc ttccggactc | ttacgtgtct cctggcctgg | ccccaggaag gaaatgtgc | 4964 |
| agcttgctcc ttccctcatct | ctcaggctgt gccttaattc | agaacaccaa aagagaggaa | 5024 |
| cgtcggcaga ggctcctgac | ggggccgaag aattgtgaga | acagaacaga aactcagggt | 5084 |
| ttctgctggg tggagaccca | cgtggcgccc tggtggcagg | tctgagggtt ctctgtcaag | 5144 |
| tggcggtaaa ggctcaggct | ggtgttcttc ctctatctcc | actcctgtca ggcccccaag | 5204 |
| tcctcagtat tttagtttg | tggcttcctg atggcagaaa | aatcttaatt ggttggtttg | 5264 |

| | |
|---|------|
| ctctccagat aatcactagc cagatttcga aattactttt tagccgaggt tatgataaca | 5324 |
| tctactgtat ccttagaat tttaacctat aaaactatgt ctactggttt ctgcctgtgt | 5384 |
| gcttatgtt | 5393 |

<210> 8
<211> 1345
<212> PRT
<213> Mus sp.

| | | | |
|---|---|----|----|
| <400> 8 | | | |
| Met Glu Ser Lys Ala Leu Leu Ala Val Ala Leu Trp Phe Cys Val Glu | | | |
| 1 | 5 | 10 | 15 |

| | | |
|---|----|----|
| Thr Arg Ala Ala Ser Val Gly Leu Thr Gly Asp Phe Leu His Pro Pro | | |
| 20 | 25 | 30 |

| | | |
|---|----|----|
| Lys Leu Ser Thr Gln Lys Asp Ile Leu Thr Ile Leu Ala Asn Thr Thr | | |
| 35 | 40 | 45 |

| | | |
|---|----|----|
| Leu Gln Ile Thr Cys Arg Gly Gln Arg Asp Leu Asp Trp Leu Trp Pro | | |
| 50 | 55 | 60 |

| | | | |
|---|----|----|----|
| Asn Ala Gln Arg Asp Ser Glu Glu Arg Val Leu Val Thr Glu Cys Gly | | | |
| 65 | 70 | 75 | 80 |

| | | |
|---|----|----|
| Gly Gly Asp Ser Ile Phe Cys Lys Thr Leu Thr Ile Pro Arg Val Val | | |
| 85 | 90 | 95 |

| | | |
|---|-----|-----|
| Gly Asn Asp Thr Gly Ala Tyr Lys Cys Ser Tyr Arg Asp Val Asp Ile | | |
| 100 | 105 | 110 |

| | | |
|---|-----|-----|
| Ala Ser Thr Val Tyr Val Tyr Val Arg Asp Tyr Arg Ser Pro Phe Ile | | |
| 115 | 120 | 125 |

| | | |
|---|-----|-----|
| Ala Ser Val Ser Asp Gln His Gly Ile Val Tyr Ile Thr Glu Asn Lys | | |
| 130 | 135 | 140 |

| | | | |
|---|-----|-----|-----|
| Asn Lys Thr Val Val Ile Pro Cys Arg Gly Ser Ile Ser Asn Leu Asn | | | |
| 145 | 150 | 155 | 160 |

| | | |
|---|-----|-----|
| Val Ser Leu Cys Ala Arg Tyr Pro Glu Lys Arg Phe Val Pro Asp Gly | | |
| 165 | 170 | 175 |

Met Ile Ser Tyr Ala Gly Met Val Phe Cys Glu Ala Lys Ile Asn Asp
195 200 205

Glu Thr Tyr Gln Ser Ile Met Tyr Ile Val Val Val Val Gly Tyr Arg
210 215 220

Ile Tyr Asp Val Ile Leu Ser Pro Pro His Glu Ile Glu Leu Ser Ala
225 230 235 240

Gly Glu Lys Leu Val Leu Asn Cys Thr Ala Arg Thr Glu Leu Asn Val
245 250 255

Gly Leu Asp Phe Thr Trp His Ser Pro Pro Ser Lys Ser His His Lys
 260 265 270

Lys Ile Val Asn Arg Asp Val Lys Pro Phe Pro Gly Thr Val Ala Lys
275 280 285

Met Phe Leu Ser Thr Leu Thr Ile Glu Ser Val Thr Lys Ser Asp Gln
290 295 300

Gly Glu Tyr Thr Cys Val Ala Ser Ser Gly Arg Met Ile Lys Arg Asn
 305 310 315 320

Arg Thr Phe Val Arg Val His Thr Lys Pro Phe Ile Ala Phe Gly Ser
 325 330 335

Gly Met Lys Ser Leu Val Glu Ala Thr Val Gly Ser Gln Val Arg Ile
 340 345 350

Pro Val Lys Tyr Leu Ser Tyr Pro Ala Pro Asp Ile Lys Trp Tyr Arg
355 360 365

Leu Thr Ile Met Glu Val Thr Glu Arg Asp Ala Gly Asn Tyr Thr Val
385 390 395 400

Ile Leu Thr Asn Pro Ile Ser Met Glu Lys Gln Ser His Met Val Ser
405 410 415

Leu Val Val Asn Val Pro Pro Gln Ile Gly Glu Lys Ala Leu Ile Ser
 420 425 430

Pro Met Asp Ser Tyr Gln Tyr Gly Thr Met Gln Thr Leu Thr Cys Thr
 435 440 445

Val Tyr Ala Asn Pro Pro Leu His His Ile Gln Trp Tyr Trp Gln Leu
 450 455 460

Glu Glu Ala Cys Ser Tyr Arg Pro Gly Gln Thr Ser Pro Tyr Ala Cys
 465 470 475 480

Lys Glu Trp Arg His Val Glu Asp Phe Gln Gly Gly Asn Lys Ile Glu
 485 490 495

Val Thr Lys Asn Gln Tyr Ala Leu Ile Glu Gly Lys Asn Lys Thr Val
 500 505 510

Ser Thr Leu Val Ile Gln Ala Ala Asn Val Ser Ala Leu Tyr Lys Cys
 515 520 525

Glu Ala Ile Asn Lys Ala Gly Arg Gly Glu Arg Val Ile Ser Phe His
 530 535 540

Val Ile Arg Gly Pro Glu Ile Thr Val Gln Pro Ala Ala Gln Pro Thr
 545 550 555 560

Glu Gln Glu Ser Val Ser Leu Leu Cys Thr Ala Asp Arg Asn Thr Phe
 565 570 575

Glu Asn Leu Thr Trp Tyr Lys Leu Gly Ser Gln Ala Thr Ser Val His
 580 585 590

Met Gly Glu Ser Leu Thr Pro Val Cys Lys Asn Leu Asp Ala Leu Trp
 595 600 605

Lys Leu Asn Gly Thr Met Phe Ser Asn Ser Thr Asn Asp Ile Leu Ile
 610 615 620

Val Ala Phe Gln Asn Ala Ser Leu Gln Asp Gln Gly Asp Tyr Val Cys
 625 630 635 640

Ser Ala Gln Asp Lys Lys Thr Lys Lys Arg His Cys Leu Val Lys Gln
 645 650 655

Leu Ile Ile Leu Glu Arg Met Ala Pro Met Ile Thr Gly Asn Leu Glu
 660 665 670

Asn Gln Thr Thr Ile Gly Glu Thr Ile Glu Val Thr Cys Pro Ala
 675 680 685

Ser Gly Asn Pro Thr Pro His Ile Thr Trp Phe Lys Asp Asn Glu Thr
 690 695 700

Leu Val Glu Asp Ser Gly Ile Val Leu Arg Asp Gly Asn Arg Asn Leu
 705 710 715 720

Thr Ile Arg Arg Val Arg Lys Glu Asp Gly Gly Leu Tyr Thr Cys Gln
 725 730 735

Ala Cys Asn Val Leu Gly Cys Ala Arg Ala Glu Thr Leu Phe Ile Ile
 740 745 750

Glu Gly Ala Gln Glu Lys Thr Asn Leu Glu Val Ile Ile Leu Val Gly
 755 760 765

Thr Ala Val Ile Ala Met Phe Phe Trp Leu Leu Leu Val Ile Val Leu
 770 775 780

Arg Thr Val Lys Arg Ala Asn Glu Gly Glu Leu Lys Thr Gly Tyr Leu
 785 790 795 800

Ser Ile Val Met Asp Pro Asp Glu Leu Pro Leu Asp Glu Arg Cys Glu
 805 810 815

Arg Leu Pro Tyr Asp Ala Ser Lys Trp Glu Phe Pro Arg Asp Arg Leu
 820 825 830

Lys Leu Gly Lys Pro Leu Gly Arg Gly Ala Phe Gly Gln Val Ile Glu
 835 840 845

Ala Asp Ala Phe Gly Ile Asp Lys Thr Ala Thr Cys Lys Thr Val Ala
 850 855 860

Val Lys Met Leu Lys Glu Gly Ala Thr His Ser Glu His Arg Ala Leu
 865 870 875 880

Met Ser Glu Leu Lys Ile Leu Ile His Ile Gly His His Leu Asn Val
885 890 895

Val Asn Leu Leu Gly Ala Cys Thr Lys Pro Gly Gly Pro Leu Met Val
900 905 910

Ile Leu Gln Phe Ser Lys Phe Gly Asn Leu Ser Thr Tyr Leu Arg Gly
915 920 925

Lys Arg Asn Glu Phe Val Pro Tyr Lys Ser Lys Gly Ala Arg Phe Arg
 930 935 940

Gln Gly Lys Asp Tyr Val Gly Glu Leu Ser Val Asp Leu Lys Arg Arg
945 950 955 960

Leu Asp Ser Ile Thr Ser Ser Gln Ser Ser Ala Ser Ser Gly Phe Val
965 970 975

Glu Glu Lys Ser Leu Ser Asp Val Glu Glu Glu Glu Ala Ser Glu Glu
980 985 990

Leu Tyr Lys Asp Phe Leu Thr Leu Glu His Leu Ile Cys Tyr Ser Phe
995 1000 1005

Gln Val Ala Lys Gly Met Glu Phe Leu Ala Ser Arg Lys Cys Ile
 1010 1015 1020

His Arg Asp Leu Ala Ala Arg Asn Ile Leu Leu Ser Glu Lys Asn
 1025 1030 1035

Val Val Lys Ile Cys Asp Phe Gly Leu Ala Arg Asp Ile Tyr Lys
 1040 1045 1050

| | | | | | | | | | | | | | | |
|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|
| Asp | Pro | Asp | Tyr | Val | Arg | Lys | Gly | Asp | Ala | Arg | Leu | Pro | Leu | Lys |
| 1055 | | | | | | 1060 | | | | | 1065 | | | |

Trp Met Ala Pro Glu Thr Ile Phe Asp Arg Val Tyr Thr Ile Gln
 1070 1075 1080

Ser Asp Val Trp Ser Phe Gly Val Leu Leu Trp Glu Ile Phe Ser
 1085 1090 1095

Leu Gly Ala Ser Pro Tyr Pro Gly Val Lys Ile Asp Glu Glu Phe
 1100 1105 1110

Cys Arg Arg Leu Lys Glu Gly Thr Arg Met Arg Ala Pro Asp Tyr
 1115 1120 1125

Thr Thr Pro Glu Met Tyr Gln Thr Met Leu Asp Cys Trp His Glu
 1130 1135 1140

Asp Pro Asn Gln Arg Pro Ser Phe Ser Glu Leu Val Glu His Leu
 1145 1150 1155

Gly Asn Leu Leu Gln Ala Asn Ala Gln Gln Asp Gly Lys Asp Tyr
 1160 1165 1170

Ile Val Leu Pro Met Ser Glu Thr Leu Ser Met Glu Glu Asp Ser
 1175 1180 1185

Gly Leu Ser Leu Pro Thr Ser Pro Val Ser Cys Met Glu Glu Glu
 1190 1195 1200

Glu Val Cys Asp Pro Lys Phe His Tyr Asp Asn Thr Ala Gly Ile
 1205 1210 1215

Ser His Tyr Leu Gln Asn Ser Lys Arg Lys Ser Arg Pro Val Ser
 1220 1225 1230

Val Lys Thr Phe Glu Asp Ile Pro Leu Glu Glu Pro Glu Val Lys
 1235 1240 1245

Val Ile Pro Asp Asp Ser Gln Thr Asp Ser Gly Met Val Leu Ala
 1250 1255 1260

Ser Glu Glu Leu Lys Thr Leu Glu Asp Arg Asn Lys Leu Ser Pro
 1265 1270 1275

Ser Phe Gly Gly Met Met Pro Ser Lys Ser Arg Glu Ser Val Ala
 1280 1285 1290

Ser Glu Gly Ser Asn Gln Thr Ser Gly Tyr Gln Ser Gly Tyr His
 1295 1300 1305

Ser Asp Asp Thr Asp Thr Val Tyr Ser Ser Asp Glu Ala Gly
 1310 1315 1320

Leu Leu Lys Met Val Asp Ala Ala Val His Ala Asp Ser Gly Thr
 1325 1330 1335

Thr Leu Ser Ser Pro Pro Val
 1340 1345

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 <212> PRT
 <213> Unknown

<220>
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Ala Cys Thr Lys Pro Gly Gly Pro Leu Met Val Ile Val Glu Phe Ser
 20 25 30

Lys Phe Gly Asn Leu Ser Thr Tyr Leu Arg Gly Lys Arg Asn Glu Phe
 35 40 45

Val Pro Tyr Lys Ser Lys Gly Ala Arg Phe Arg Gln Gly Lys Asp Tyr
 50 55 60

Val Gly Glu Leu Ser Val Asp Leu Lys Arg Arg Leu Asp Ser Ile Thr
 65 70 75 80

Ser Ser Gln Ser Ser Ala Ser Ser Gly Phe Val Glu Glu Lys Ser Leu
 85 90 95

Ser Asp Val Glu Glu Glu Ala Ser Glu Glu Leu Tyr Lys Asp Phe
 100 105 110

Leu Thr Leu Glu His Leu Ile Cys Tyr Ser Phe Gln Val Ala Lys Gly
 115 120 125

Met Glu Phe Leu Ala Ser Arg Lys Cys Ile His Arg Asp Leu Ala Ala
 130 135 140

Arg Asn Ile Leu Leu Ser Glu Lys Asn Val Val Lys Ile Cys Asp Phe
 145 150 155 160

Gly Leu Ala Arg Asp Ile Tyr Lys Asp Pro Asp Tyr Val Arg Lys Gly
165 170 175

Asp Ala Arg Leu
180

<210> 10
<211> 180
<212> PRT
<213> *Homo sapiens*

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1           5           10          15

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Ala Cys Thr Lys Pro Gly Gly Pro Leu Met Val Ile Val Glu Phe Cys
 20 25 30

Lys Phe Asp Asn Leu Ser Thr Tyr Leu Arg Ser Lys Arg Asn Glu Phe
 35 40 45

Val Pro Tyr Lys Thr Lys Gly Ala Arg Phe Arg Gln Gly Lys Asp Tyr
50 55 60

Ser Ser Gln Ser Ser Ala Ser Ser Gly Phe Val Glu Glu Lys Ser Leu
85 90 95

Ser Asp Val Glu Glu Glu Ala Pro Glu Asp Leu Tyr Lys Asp Phe
 100 105 110

Leu Thr Leu Glu His Leu Ile Cys Tyr Ser Phe Gln Val Ala Lys Gly
115 120 125

Met Glu Phe Leu Ala Ser Arg Lys Cys Ile His Arg Asp Leu Ala Ala
130 135 140

Arg Asn Ile Leu Leu Ser Glu Lys Asn Val Val Lys Ile Cys Asp Phe
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Gly Leu Ala Arg Asp Ile Tyr Lys Asp Pro Asp Tyr Val Arg Lys Gly
165 170 175

Asp Ala Arg Leu
180

<210> 11
<211> 180
<212> PRT
<213> Rattus sp.

<400> 11
Ile Leu Ile His Ile Gly His His Leu Asn Val Val Asn Leu Leu Gly
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Ala Cys Thr Lys Pro Gly Gly Pro Leu Met Val Ile Val Glu Phe Cys
20 25 30

Lys Phe Gly Asn Leu Ser Thr Tyr Leu Arg Gly Lys Arg Asn Glu Phe
35 40 45

Val Pro Tyr Lys Ser Lys Gly Ala Arg Phe Arg Ser Gly Lys Asp Tyr
50 55 60

Val Gly Glu Leu Ser Val Asp Leu Lys Arg Arg Leu Asp Ser Ile Thr
65 70 75 80

Ser Ser Gln Ser Ser Ala Ser Ser Gly Phe Val Glu Glu Lys Ser Leu
85 90 95

Ser Asp Val Glu Glu Glu Ala Ser Glu Glu Leu Tyr Lys Asp Phe
100 105 110

Leu Thr Leu Glu His Leu Ile Cys Tyr Ser Phe Gln Val Ala Lys Gly
115 120 125

Met Glu Phe Leu Ala Ser Arg Lys Cys Ile His Arg Asp Leu Ala Ala
130 135 140

Arg Asn Ile Leu Leu Ser Glu Lys Asn Val Val Lys Ile Cys Asp Phe
145 150 155 160

Gly Leu Ala Arg Asp Ile Tyr Lys Asp Pro Asp Tyr Val Arg Lys Gly
165 170 175

Asp Ala Arg Leu
180